

REMARKS

Amendments

The claims are amended to correct grammatical errors, delete superfluous language, and use language in accordance with conventional US practice. In addition, claim 1 is amended to recite that each of the subsections is in fluid communication with the first rectifying section and the third rectifying section. See, e.g., page 5, lines 10-11 and Figures 1-2. The amendments to the claims are supported throughout the disclosure. See, e.g., Figures 1-2 and the discussion thereof at pages 8-12 of the specification.

New claims 14-17 are directed to preferences previously recited in claims 1, 7, and 9. New claims 18-20 are directed to further aspects of the invention. See, for example, Figure 1-2 and the original claims.

Claim 4 is cancelled since the feature of removing stream (13) from the second subsection is already recited in claim 1.

Rejection under 35 USC 102(b) in view of Agrawal et al. (US 6,240,744)

Claims 1-7 and 9-13 are rejected as allegedly being anticipated in view of Agrawal et al. (US 6,240,744). This rejection is respectfully traversed.

Agrawal et al. disclose a distillation system for separation of air and the production of an argon-enriched stream. As shown in Figure 1, the system comprises a high-pressure column 103 and a low-pressure column 121. Figure 1 shows three distillation sections in low-pressure column 121, i.e., bottom distillation section 123, intermediate distillation section (125 and 127), and apparently a top distillation section illustrated above the intermediate distillation section.

The intermediate distillation section is divided into subsections 125 and 127 by a vertical separating element 129 and an end separating element 131. The gaseous stream 133 exiting the bottom distillation section 123 is split into two portions, 135 and 137. First portion 135 flows into intermediate distillation subsection 127, whereas second portion 137 flows into the so-called partitioned section, subsection 125. There is no barrier preventing gases exiting intermediate distillation subsection 127 from flowing into the top distillation section. However, end separating barrier 131 prevents fluid flow between partitioned section

125 and the top distillation section. Instead, an argon-enriched gas stream 139 is removed from the top of partitioned section 125, and partially condensed by heat exchange. Thereafter, a portion of the argon-enriched stream is removed from the system as stream 145 and another portion of the argon-enriched stream is returned as reflux to partitioned section 125.

Thus, partitioned section 125 of the intermediate distillation section is not in fluid communication with the top distillation section of the low pressure column. Thus, the disclosure of Agrawal et al. fails to anticipate applicants' claimed invention.

Furthermore, nothing within the rejection suggests that it would be obvious to one of ordinary skill in the art to modify the system of Agrawal et al. so as to eliminate the important feature of isolating the partitioned section 125 from the top distillation section of the low pressure column. It is this feature which produces the argon-enriched stream which is removed from the system. Thus, Agrawal et al. also fails to render obvious applicants' claimed invention to one of ordinary skill in the art.

In view of the above remarks, withdrawal of the rejection is respectfully requested.

Rejection under 35 USC 103(a) in view of Agrawal et al. (US 6,240,744)

Claim 8 is rejected as allegedly being obvious in view of Agrawal et al. (US 6,240,744). This rejection is respectfully traversed.

In the rejection it is asserted that it would be obvious to modify the argon column in known ways so as to achieve the desired purity. However, as noted above, the disclosure of Agrawal et al. fails to anticipate or render obvious the process recited in applicants' claims wherein each of the subsections of the second rectifying section is in fluid communication with the first rectifying section and the third rectifying section.

In view of the above remarks, withdrawal of the rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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